

VANCE SHEETS

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FOR 1906

CHAPTER I

Education in Great Britain and Ireland, 1904-1906

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CHAPTER I.

EDUCATION IN GREAT BRITAIN AND IRELAND, 1904-1906.^a

Great Britain and Ireland, constitutional monarchy; area, England and Wales, 58,186 square miles; population, 33,957,648 (estimated 1904). Scotland, 29,820 square miles; population, 4,652,063 (estimated 1904). Ireland, 32,583 square miles; population, 4,399,395 (estimated 1904).

TOPICAL OUTLINE.

Comparative independence of educational institutions in Great Britain.—Relations of the Government to educational institutions in Great Britain.—Statistical summary of schools and universities. Tables 1-5.

England and Wales, record of the year: The education bill of 1906; efforts to improve the living conditions of the poorer classes; the "Provision of meals act;" the higher elementary schools.

Detailed view of elementary education, England and Wales: Relation of the board of education to elementary schools; local administration of schools; statistical summary of the several classes of elementary schools, Tables I and II; additional particulars relative to ordinary public elementary schools; expenditures, 1905-6.

Universities of Great Britain and Ireland: Students in specified years from 1897 to 1904; university notes, Oxford; Cambridge; Aberdeen; Dublin; the university colleges aided by Parliamentary grant.

RELATIONS OF THE GOVERNMENT TO EDUCATIONAL INSTITUTIONS IN GREAT BRITAIN.

The conditions under which education is fostered in Great Britain are in many respects similar to those characteristic of the United States. In neither country are the different departments of education welded into a system as they are in France and in other continental countries. The independence and variety of institutions is even more marked in Great Britain than in our own country and extends to all grades of education above the elementary.

In each division of the Kingdom the elementary schools have been organized in a system under the supervision, and with the fostering aid, of the Government. In England the system is administered by the board of education which came into existence April 1, 1900, replacing both the education department and the department of science and arts. The education department for Scotland (committee of council on education) administers the treasury grant for elementary schools, which are under the immediate management of local school boards. In Ireland the elementary or national schools are under the superintendence of the "Commissioners of national education in Ireland." These commissioners issue general regulations for the schools and administer the annual grant for elementary education, which is paid over to the local school managers.

A comprehensive view of the schools and higher institutions aided by the Government in the different divisions of Great Britain is afforded by a "return" dated April 4, 1906, prepared in response to a call by the House of Commons during the last session. This is the first endeavor on the part of the Government to embody in one presentation the whole educational work which it fosters, and is a significant sign of the growing sense of the interrelations of all grades and kinds of education.

The statistical tables comprised in the return referred to are given below. They are accompanied in the original document by copious notes explaining the conditions peculiar to each division of the Kingdom that prevent statistics classed together from

^a For complete index of articles on education in Great Britain and Ireland in reports of this series, see Report of Commissioner for 1904, vol. I, chap. xii, pp. 799-832.

being exactly homogeneous. These considerations have special significance in respect to the purposes for which the return was ordered; but since they relate often to minute details of administration which are of little general interest, only such of the notes are repeated in connection with the tables as serve to explain special features of that part of education to which the particular table may relate. Further than this, it will suffice to quote here the following statement as to the relation of the statistics given in the prefatory note of the return. "The figures as to the numbers of educational institutions and numbers of pupils in them relate to periods often different from each other and in every case different from the period taken for the financial returns, viz, the financial year. The methods of making grants and of calculating them differ in England and Wales, Scotland, and Ireland, respectively, and it is only after a careful comparative study of the various bodies of regulations that any sure basis for a comparison of the figures in this return can be obtained."

Efforts have recently been made to bring the secondary schools in the different divisions of the Kingdom under the general supervision of the Government and to supplement their resources by public funds. Wales has a special administrative body for this work—the intermediate education board—similar to the corresponding board previously established in Ireland. In Scotland secondary schools were recognized as part of the public system of education provided for by the law of 1872; and in England, which has been more backward in this respect than other divisions of the Kingdom, the province of the board of education has been extended to include secondary schools. In like manner provision for technical education has been made both by means of treasury grants and local taxes. Hence the statistics comprised in the return and here reproduced are classified under four heads corresponding to the four recognized departments or grades of education.

STATISTICAL SUMMARY OF SCHOOLS AND UNIVERSITIES.

TABLE 1.—*Summarized statistics of primary education in the United Kingdom for the year 1904-5.*

	Total number of public elementary schools receiving grants from Imperial exchequer.	Total number of pupils on rolls.	Total number of pupils in average attendance.	Number of principal teachers.		Number of assistant certificated teachers.		Number of assistant uncertificated teachers.	
				Men.	Women.	Men.	Women.	Men.	Women.
England and Wales.....	20,656	6,065,660	5,266,690	13,949	18,101	14,870	33,543	5,554	36,581
Scotland.....	3,244	804,162	696,381	2,404	1,422	2,287	7,491	205	2,513
Ireland.....	8,574	724,694	478,900	4,635	3,939	1,165	2,858		

	Number of supplementary teachers.		Number of pupil teachers.		Average number of pupils in average attendance per principal teacher.		Average salary of principal teacher.		Average salary for assistant certificated teachers.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
England and Wales.....		19,020	5,366	25,265	181.8	151	£. s. d. 160 15 9	£. s. d. 109 13 6	£. s. d. 114 17 10	£. s. d. 83 12 6
Scotland.....	354		676	3,515	215	126	179 6 0	90 6 0	122 3 2	75 2 10
Ireland.....		730	850	2,633	53.4	58.7	102 19 6	82 11 9	73 2 4	58 1 1

Total grants from Imperial exchequer: England and Wales, £11,065,496 12s. 4d. ^a (\$53,778,310); Scotland, £1,451,020 (\$7,051,957); Ireland, £1,364,887 (\$6,633,350).

^a The current exchange value of a pound, viz, \$4.86, is here used.

TABLE 2.—*Secondary education.*

	Total number of schools receiving State grants.	Total number of registered pupils.	Number of pupils per 1,000 in proportion to population.	Total grants from Imperial exchequer.
England and Wales.	679	95,299	2.8	$\left\{ \begin{array}{l} a \text{ £223,059 } 12s. \text{ } 6d. \\ \quad (\$1,084,006) \\ \quad \text{£16,442} \\ \quad (\$79,908) \\ b \text{ £20,960 } 7s. \text{ } 2d. \\ \quad (\$101,865) \end{array} \right.$
Scotland.	51	16,300	3.5	
Ireland.	310	14,879	3.6	

a Exclusive of £22,621 for intermediate education in Wales.

b Exclusive of funds at the disposal of the commissioners of intermediate education.

These funds are: (*a*) The interest of £1,000,000 derived from the Irish Church temporalities. (*b*) The residue of the Irish share of the local taxation (customs and excise) duties after the statutory claims of the department of agriculture are satisfied. These amount to £83,000 per annum. (*c*) Interest on the invested savings of the income of former years.

In the year ending December 31, 1905, the income of the board was, from source (*a*) £27,500, from source (*b*) £50,385 6s. 10d., from source (*c*) £3,095 9s. 11d., including £392 5s. 11d. as interest on advances to managers.

TABLE 3.—*Technical education.*

NOTES ON THE FIGURES GIVEN FOR ENGLAND AND WALES.

The schools and classes given under the head of "Technical education" include the various classes and institutions working under the regulations of the board for evening schools, technical institutions, and schools of art and art classes. They, therefore, include certain classes held under Division I of the evening school regulations, many of which are not of a strictly technical nature, but are rather of the nature of evening continuation work in general education. No figures are given in the table of the number of agricultural colleges receiving State aid through the board of agriculture or of the number of registered students in those colleges or of the amount of the grants received from the board of agriculture. Seventeen universities and colleges received grants for agriculture during 1904-5, amounting in all to £10,200.

N. B.—The figures in parentheses preceding the following paragraphs are used to connect the notes with the items in the table below against which similar figures are placed.

(1) The number of schools and classes is the number recognized for the session 1904-5.

(2) The number of registered pupils is the number on the registers as having attended at any time during the year ending July 31, 1905, not the number in respect of whom grants were paid. The number of pupils in respect of whom grants were paid during 1904-5 was 535,430.

The figures in the table do not include the cost of maintaining the royal colleges of science and of art or the Victoria and Albert Museum or the Geological Museum, all of which are supported by the Imperial exchequer by funds borne upon the vote of the board of education. The amounts are as follows:

	£	s.	d.
Royal College of Science.	21,032	18	8
Royal College of Art.	11,749	9	11
Museums, etc.	88,364	17	0
Geological Museum.	3,835	6	5

NOTES ON THE FIGURES GIVEN FOR SCOTLAND.

These figures do not include the expenditure in respect of the Royal Scottish Museum, which amounts to £16,158.

N. B.—The figures in parentheses preceding the following paragraphs are used to connect the notes with the items in the table below against which similar figures are placed.

(1) Of the number given in the table, 758 are continuation classes and 10 central institutions, including 3 agricultural colleges.

(2) This is the number in respect of whom grants were paid. The department has no record of the exact number registered by managers, but this is considerably greater than the number in respect of whom grants were paid.

(3) This sum includes grants amounting to £6,810 4s. 9d. to agricultural colleges and £975 10s. for local scholarships.

NOTES ON THE FIGURES GIVEN FOR IRELAND.

This table does not include statistics in respect of agricultural education.

N. B.—The figures in parentheses preceding the following paragraphs are used to connect the notes with the items in the table below against which similar figures are placed.

(1) This includes those science and art classes conducted during the academic year, August 1, 1904, to July 31, 1905 (under the regulations of the Science and Art Directory for 1901), which qualified for grant, and the schools which were conducted by, or aided by, local technical instruction committees during the same academic year, but excludes the Royal College of Science, the Metropolitan School of Art, the Irish Training School of Domestic Economy, and 617 short courses of instruction (usually of six weeks' duration) which were conducted during the department's academic year, August 1, 1904, to July 31, 1905, in rural districts by instructors engaged by local technical instruction committees. Eighty-five science and art classes only received exchequer grants under the directory.

(2) This includes 25,958 students in attendance during the academic year, August 1, 1904, to July 31, 1905, at permanent centers of instruction conducted under the provisions of local schemes of technical instruction, 1,030 students attending science and art classes other than those conducted under local schemes and 670 students attending "Industries" classes directly aided by the department, but does

not include the students of the Royal College of Science, who during the academic year, August 1, 1904, to July 31, 1905, numbered 124 (of whom 40 were agricultural students), or of the Metropolitan School of Art, who numbered 479 during the same academic year, or of the Irish Training School of Domestic Economy, who numbered 589, or the 16,387 students who attended the 617 short courses of instruction given in rural districts within the academic year August 1, 1904, to July 31, 1905. The number of students who qualified for grants (under the directory for 1901) was 4,963.

(3) This total includes the exchequer grants made by the department of agriculture and technical instruction amounting to £7,063 10s. 2d. and the grant for technical instruction from the Ireland development grant, £3,500. The total expenditure on the Royal College of Science was £15,268 and the expenditure on the Metropolitan School of Art £4,497. In addition, £1,175 13s. 6d. was spent on the buildings of the Royal College of Science and £368 3s. 1d. on the buildings of the school of art; £33,293 10s. 1d. was spent on acquiring the site for the new college of science. All the sums named refer to actual expenditure in the State financial year, April 1, 1904, to March 31, 1905.

	Total number of schools and classes receiving State aid.	Total number of registered pupils.	Total grants from Imperial exchequer.
			£ s. d.
England and Wales.....	(1) 6,095	(2) 760,997	(3) 282,248 9 1
Scotland.....	(1) 768	(2) 104,259	(3) 97,470 0 0
Ireland.....	(1) 234	(2) 27,658	(3) 10,363 10 2

TABLE 4.—*University education.*

NOTES ON THE FIGURES GIVEN FOR ENGLAND AND WALES.

N. B.—*The figures in parentheses preceding the following paragraphs are used to connect the notes with the items in the table below against which similar figures are placed.*

(1) The figures given in the table below relate to the academic year 1904-5, and are confined, so far as the number of professors is concerned, to those university teachers who actually hold chairs in a university itself. They do not include teachers holding the title and status of professor in university colleges which are constituent in a university, such as University College, London; King's College, London; the Royal College of Science, or the Armstrong College, Newcastle upon Tyne, unless the appointment to these chairs is made by the university. The numbers are based upon figures furnished by the universities themselves. If a professor holds two chairs, he has only been counted once. In the case of Oxford 106 members of the university staff, designated as readers, teachers, etc., who elsewhere would be called professors, have not been included. In the case of Cambridge, 67 such teachers have been omitted from the table. In the case of London, since the university statutes make no reference to the title "University professor," those teachers "appointed by" the university who are also heads of departments have been included, whilst heads of departments appointed by the various schools of the university even though they hold the title and status of professor, have been omitted. In the case of Wales, there are no university professors distinct from those holding chairs in the constituent colleges, and in this case these professors have been included. It follows from this that the figures given in the table are but an inadequate measure of the number of university teachers who are heads of departments. The figures given are confined to those whose technical status seems to bring them within the wording of the table.

(2) The figures in the table do not include students who have passed the matriculation examination of the University of London, but who have not entered upon a course of study in a school or under a teacher of the university. These students, who are called "External students," have been omitted from the table. The number of matriculated students furnished by the University of Oxford may, the university authorities point out, in any given year be somewhat in excess of the number actually present in the university, for a matriculated student in that university means a student whose name is on the books. The same remark applies to the University of Cambridge. On the other hand, there are many students undergoing regular courses of instruction, sometimes of a very advanced type, in the universities and constituent colleges of the universities, who, since they have not matriculated, are not included in the foregoing table.

The figures for the University of Wales have been taken from the calendar of the University of Wales, and not from the calendars of the constituent colleges.

(3) The figures given in the table include the grants in aid made (a) to universities, (b) to the university colleges in England that are constituent colleges of a university, and (c) to the university colleges which together constitute the University of Wales; but they do not include the grants made to University College, Sheffield (since granted a charter as the University of Sheffield); University College, Nottingham; University College, Bristol; University College, Reading; or University College, Southampton. They also include provision made in connection with the University of London for buildings, etc., rates, and pensions amounting to £9,611 (*cf.* estimates, 1904-5, Class IV, p. 391).

The universities of Oxford and Cambridge receive no grants from the Imperial exchequer.

NOTE ON THE FIGURES GIVEN FOR SCOTLAND.

The figures given in the table below have been supplied by the universities themselves.

N. B.—*The figure in parentheses preceding the following paragraph is used to connect the note with the item in the table below against which a similar figure is placed.*

(1) This includes a government grant of £1,000 to the University College, Dundee.

NOTES ON THE FIGURES GIVEN FOR IRELAND.

N. B.—*The figures in parentheses preceding the following paragraphs are used to connect the notes with the items in the table below against which similar figures are placed.*

(1) The universities are the University of Dublin and the Royal University of Ireland. The University of Dublin comprises one college, viz, Trinity College, Dublin. The Royal University of

Ireland is not a teaching university, but the greater part of the teaching for the degrees of this university is carried on in five institutions—the three Queen's colleges at Belfast, Cork, and Galway; the Catholic University College, Dublin, and Magee College, Londonderry. The statistics as to numbers of professors and students are given with reference to the six colleges named, but it is to be noted that matriculated students of the Royal University are taught in other colleges.

(2) The details are as follows:

(a) Trinity College, Dublin. The teaching staff consists of 25 junior fellows, of whom 9 are professors and 3 lecturers (special), 30 professors who are not fellows, and 10 lecturers (special) who are neither professors nor fellows. Total, 65.

(b) The Royal University of Ireland. There are no professors of the university, but the senate appoints fellows of the university, whose duty is to take part in conducting the university examinations and to teach matriculated students of the university in the "approved" colleges, which are those above named. The fellows in 1904 were 27 in number, distributed as follows: Belfast, 6; Cork, 4; Galway, 1; Catholic University College, 15; Magee College, 1. The fellows of the Royal University have hitherto been invariably appointed in the first instance as teachers in some one of the approved colleges. The table of the numbers of the professors of these colleges is furnished as the table of the number of professors of the university.

In the academic session, beginning in 1904 and ending in 1905, there were the following numbers of professors (excluding assistant professors, lecturers, and demonstrators) in the colleges named: Queen's College, Belfast, 19; Queen's College, Cork, 16; Queen's College, Galway, 16; the Catholic University College, Dublin, 15; Magee College, Londonderry, 7.

(3) In the academic session, beginning in 1904 and ending in 1905, Trinity College, Dublin, had 1,088 matriculated students; Queen's College, Belfast, 345; Queen's College, Cork, 240; Queen's College, Galway, 95; Catholic University College, 150; Magee College, Londonderry, 60.

(4) Each Queen's college receives £7,000 annually from the consolidated fund, and in addition there is a grant for each on the estimates. In addition to the total shown, £3,986 4s. 4d. was spent from the board of works vote on the Queen's colleges buildings, and £340 6s. 5d. from the same vote on the Royal University buildings.

The Royal University of Ireland receives no grant from the Imperial exchequer, but receives a grant of £20,000 annually from the commissioners of church temporalities in Ireland.

	Total number of universities.	Total number of professors.	Total number of matriculated students.	Total grants from Imperial exchequer.
England and Wales	9	1 310	2 13,215	{ £80,611 (£391,769) 1 £43,000 (£208,080)
Scotland	4	127	6,656	{
Ireland	12	2 117	3 1,978	{ 4 £25,560 3s. 8d. (£124,221)

TABLE 5.—Summary.

	England and Wales.	Scotland.	Ireland.
1. Total grants from Imperial exchequer for primary, secondary, technical, and university education.	{ £11,751,415 13s. 11d. (£57,111,876)	{ £1,607,932..... (£7,814,540)	{ £1,421,971 1s. (£6,910,779)
2. Proportion of (1) to total population.	6s. 11d. per head....	6s. 11d. per head....	6s. 5½d. per head.
3. Total sum raised from local rates for educational purposes.	£9,233,130.....	£1,134,242.....	£26,001 18s. 4d.
4. Proportion of (3) to total population.	5s. 5½d. per head....	4s. 10½d. per head....	1½d. per head.
5. Total sum received from the local taxation account.	£918,796.....	£247,005.....	£112,885 6s. 10d.
6. Proportion of (5) to total population.	6½d. per head.....	1s. 3½d. per head.....	6½d. per head.
7. Total cost to the Imperial exchequer of central administration for primary, secondary, and technical education.	£399,815 17s. 8d.	£60,172.....	a £83,035 16s. 2d.
8. Proportion of (7) to (1).....	3.4 per cent.....	3.5 per cent.....	5.8 per cent.
9. Total sum expended by local authorities on local administration of primary, secondary, and technical education.	£1,123,633.....	£108,400.....	£21,194.

a The corresponding expenditure in respect of schools under the administration of the commissioners of intermediate education is met out of the funds of the commissioners.

In the year ending December 31, 1905, the total income of the board was £85,767; the total expenditure, £86,988; the expenditure on administration (examination, salaries of administrative officers, etc.), £23,045; proportion of this to direct expenditure on school grants and prizes, 36 per cent.

The education bill of 1906.—The current year has been marked by an event in the educational history of England of no less moment than the passage of the education act of 1870. The education bill, introduced by a Liberal ministry into the House of Commons, April 9, 1906, was passed after four months of exhaustive discussion by a majority of 192 in a total vote of 546. In the House of Lords, the measure was amended out of all semblance to its original character, with the result that the proposals of the upper house were rejected in toto by the House of Commons. The House of Lords refused to concur in the decision of the Commons and the measure was thus lost. The bill was the immediate outcome of the Balfour law of 1902, which placed voluntary (chiefly denominational schools) upon the local taxes, but without local control. As a consequence, Nonconformists were obliged to pay taxes for sectarian teaching opposed to their conscientious convictions and given in schools under church teachers. The electoral campaign, which returned an immense Liberal majority to the House of Commons, was fought out mainly over this issue; hence the wrecked bill, as regards its main propositions, voiced the will of the majority of the voters. By this bill the dual school system, comprising public schools, i. e., former board, now council schools, and voluntary schools, with all the anomalies entailed thereby, was abolished. The first clause of the bill provided that every school supported by public funds should be under the control of the local authorities; religious tests for teachers were prohibited and also all denominational teachings in public elementary schools, excepting by special arrangements with the local authorities. Even in such cases this instruction could not be given in the regular school hours, nor at public expense.^a

The failure of this measure leaves the law of 1902 in full operation and threatens the continuance of troubles arising from the enforced tax for sectarian instruction. The opposition to this tax, expressed by the remarkable movement of passive resistance, promises to be more bitter and determined than before; the feeling in this matter is intensified by the final decision in the West Riding case. This is the case referred by the council of West Riding County as to their right to withhold a portion of the salaries of teachers who give religious instruction of a sectarian character, in voluntary schools in the county. The high court of appeals decided that no local authority "is required to pay the whole salary of any teacher who gives religious instruction in a voluntary school." The case was then appealed to the House of Lords, by the managers of the schools referred to, and in this final tribunal the judgment was reversed. This decision defeats the hope that a way might be found of administering the law of 1902 without violence to any man's conscience.

By the provisions of the law managers of "voluntary schools are required to keep the schoolhouse in good repair, and make such alterations and improvements in the buildings as may be reasonably required by the local education authority." Under present conditions this provision is likely to be rigidly enforced with the result that many parochial schools will be closed or transferred absolutely to the local authority. There is indeed a rapidly growing conviction that control by the local authorities is the only guaranty of sanitary conditions and efficient instruction in the schools. So that, apart from the desire to end the religious controversy, there is a strong movement toward a unified system of schools under the control of public authorities. The prediction is made with great confidence in many quarters that the conflict between the House of Commons and the House of Lords will simply hasten the movement for a system of nonsectarian schools supported and controlled by public authorities.

Efforts to improve the living conditions of the poorer classes.—Apart from the contest over the education bill, the year has been marked by strenuous efforts to improve the living conditions of the children of the poorer classes. Universal regret was expressed that the defeat of the bill carried with it that of the proposed medical

^a For the full provisions of this bill see Bulletin of the U. S. Bureau of Education, No. 1, 1906.

inspection of schools. A closely allied proposition was embodied in the "provision of meals act," which passed at the close of the session.

The main points of this act are here presented as summarized by M. C. H. Wyatt, of Manchester, chairman of the Association of Directors and Secretaries for Education, in a meeting of that association recently held in London (January 10, 1907):

The act is permissive, consequently before it can be put into force in Manchester it will be necessary for its provisions to be adopted by the city council.

The local education authority may associate themselves with any committee, on which they shall be represented, who will undertake to provide food for the children. The title of the committee to be "The School Canteen Committee."

Financial aid may be given by the local education authority for the provision of land, buildings, furniture, apparatus, and officers necessary for the preparation and service of meals, but, save as hereinafter provided, the authority shall not incur any expense in respect of the purchase of food to be supplied at such meals. (Section 1.)

Payment of meals.—Parents to be charged such an amount as may be determined by the local education authority in respect of every meal furnished to a child; unless the authority are satisfied that the parent is unable to pay, they must require such payment, and the same may be recovered summarily. Where the meals are furnished through a canteen committee, the local education authority to pay over to the committee such an amount recovered as represents the cost of food furnished by the committee. (Section 2.)

Franchise of parents.—The franchise of a parent is not to be affected by relief granted under this act unless during the qualifying period the parent has been convicted of cruelty or neglect in respect of a child to whom a meal has been furnished. (Section 4.)

Expenditure and borrowing powers.—The provisions of the education acts to apply to expenditure and the borrowing powers of a local education authority under the education acts are extended to work under this act. (Section 5.)

Teachers.—It is not to be a condition of employment that any teacher in a public elementary school should assist or abstain from assisting in the provision of meals. (Section 6.)^a

HIGHER ELEMENTARY SCHOOLS.

The year has also been marked by progress in the development of higher elementary schools; that is, schools which continue the instruction of pupils up to their seventeenth year. These schools, created by a minute of the board of education of date April 6, 1900, replace the "higher grade schools" which grew up under the former school boards in response to existing demands. The progress of these schools was checked by the Cockerton judgment to the effect that the moneys granted for elementary education could not be applied to schools of that character. The board of education, by regulations issued in 1905, put the higher schools upon a new basis that admits of the freest possible development. They are to provide for the continuance of a sound English education, but beyond this the local authority is free, subject to the approval of the board of education, to adapt the higher elementary school to the special needs of the district in which it is situated. This very freedom, however, has caused some confusion. As a means, therefore, of determining more exactly the scope of these schools and the best means of equipping them for their special province, the subject was referred to the consultative committee for special investigation and report. The results of their inquiry are embodied in a report on the subject issued during the current year. In this report the committee endeavor to define the limits of the higher elementary as distinguished from the secondary school; but while such distinction is insisted upon, the report also makes it clear that in the opinion of the committee the higher elementary school is not to be an apprenticeship or trade school. They do not oppose the establishment of trade schools, which are indeed urgently demanded, but advise that if established they are not to be brought within the regulations of the board of education for higher elementary schools.

^a Cited from School Government Chronicle and Education Authorities Gazette of January 12, 1907, pp. 32-33.

The report of the consultative committee on higher elementary schools, taken in connection with the regulations respecting secondary schools issued by the board of education in 1903,^a and with the efforts for the extension of instruction in science and industrial art, shows the purpose of the board to carry out the full intent of the law of 1902, as regards the extension of Government supervision and aid beyond the narrow limits of primary schools. The great object of the law of 1870, namely, that of securing school provision for all children in the realm, has been accomplished. The present demand for an extension of this work is one of the most important outcomes of that measure, and in respect to the recognition of that demand and the necessity of meeting it, the law of 1902 marks a distinct advance in the development of national education.

DETAILED VIEW OF ELEMENTARY EDUCATION, ENGLAND AND WALES.

Relation of the board of education to elementary schools.—The board of education administers Parliamentary grants for education, and to this end supervises the work of the schools aided and also issues regulations determining the conditions upon which the grant may be received. Through this policy, maintained since 1833, the year in which the first grant for elementary education was allowed, the authority of the Government over elementary schools has been constantly extending and has been the chief means of unifying their work throughout the country. In their report for 1904-5-6 the board of education explain that an elementary school, as defined by the elementary education act, 1870, is "a school at which elementary education is the principal part of the education there given," but the term "does not include any school at which the ordinary payments in respect of the instruction, from each scholar, exceed ninepence a week." A public elementary school is a school which satisfies certain further conditions imposed by the act, and is conducted in accordance with the code of regulations in force for the time being. Under the act of 1902 a public elementary school must, except in the case of certain schools attached to institutions, be maintained by the local education authority; but the power to provide instruction in a public elementary school is limited (except by consent of the board of education) to the provision of instruction for scholars who, at the close of the school year, will not be more than 16 years of age. The statutory age limit is the same in the case of higher elementary schools as in the case of other public elementary schools. On the other hand, in the case of blind, deaf, defective, or epileptic children, it extends to the age of 16 years, so that these children can remain at school up to the completion of the sixteenth year, whether this occurs in the course of the school year or at the end of it.

The term "certified efficient school" is applied to a school which is an elementary school within the meaning of the act of 1870, and which, although it does not receive grants and is not required to comply with the conditions for a public elementary school, is open to inspection and is certified efficient by the board of education. There are special regulations relating to these schools.

Local administration.—The immediate administration of elementary schools rests with the local authorities, subject to the conditions imposed by law.

The elementary education act of 1870 and subsequent amending acts (England and Wales) require that sufficient school accommodation be provided in every district for all the resident children between the ages of 5 and 14. Under acts of 1899 and 1900 children between 12 and 14 years of age may (if it is so provided in local by-laws) conditionally obtain partial or total exemption from school attendance;

^a See Report of the Commissioner for 1904, vol. 1, chap. xii, pp. 835-838.

for children employed in agriculture the lower age limit for partial exemption is 11. An act of 1899 requires the school authorities to make provision for the compulsory education of defective children to the age of 16 years. Under the education act, 1902, and the education London act, 1903, school boards and school attendance committees are abolished, their place being taken by the councils of counties, of county boroughs, of noncounty boroughs with population over 10,000, and of urban districts with population over 20,000. These local authorities (but not necessarily the two classes last mentioned) must establish educational committees, each in accordance with its own scheme, which must be approved by the board of education. The schemes must provide for the appointment by the council, from its own members, of a majority of the committee (unless, in the case of a county the council determine otherwise), for the appointment by the council of other persons with special qualifications, and for the appointment of women on the committees. Schools provided by county councils must have managers in the proportion of 4 appointed by the council and 2 by the borough, district, or parish served by the school. Councils of county boroughs, etc., may appoint any number of managers for their provided schools. Schools aided, but not provided by local authorities, will have 4 "foundation" managers and 2 managers appointed by councils. Women may be managers.

The managers are responsible for the conduct of the individual schools or group of schools placed under their charge. The education committees act as advisory bodies to the respective councils; the law also provides that a council may "delegate to the education committee, with or without any restrictions or conditions, as they think fit, any of their powers under this act, except the power of raising a rate or borrowing money."

The local education authorities control all expenditure necessary to maintain the public elementary schools. In the case of schools not provided by them, their requirements, as to secular instruction and the number and qualification of teachers, must be complied with. They have power to inspect nonprovided schools, and they must have the use of the buildings of the same, free of charge, for elementary school purposes. The law of 1902 prescribes the funds from which the expenditure for public schools is to be met, and gives the local authorities borrowing powers. The local funds to be used for the maintenance of schools are derived from local taxes (rates) and from the income of endowments for elementary education, which are to be applied in such a manner as to reduce the rate of the local school taxes.

The several Government grants formerly allowed for the support of elementary schools are replaced under the law of 1902 by a grant at the rate of 4 shillings per pupil in average attendance, and "an additional sum of 3 half pence per scholar for every complete 2 pence per scholar by which the amount which would be produced by a penny rate on the area of the authority falls short of 10 shillings a scholar." Under certain conditions, however, the grant may be reduced.

In accordance with the law of 1902, elementary schools are classified as provided and nonprovided, corresponding, respectively, to the former board and voluntary schools. The number of separate local authorities for education on November 1, 1905, was as follows:

Councils of administrative counties.....	62
County boroughs.....	72
Self-governing municipal boroughs.....	136
Self-governing urban districts.....	56
Scilly Isles.....	1

PUBLIC ELEMENTARY SCHOOLS (GENERAL TABLES).

TABLE I.—*Number of schools recognized on January 1, 1906, with their accommodation.*

	Council schools, provided.		Voluntary schools, nonprovided.		Total.	
	Num- ber.	Accommo- dation.	Num- ber.	Accommo- dation.	Num- ber.	Accommo- dation.
Ordinary public elementary schools: ^a						
Maintained by local education au- thorities.....	6,800	3,445,881	13,652	3,542,180	20,513	7,005,041
Attached to boarding institutions, and not maintained by local educa- tion authorities (education act, 1902, sec. 15).....			61	16,974		
Higher elementary schools.....	30	10,007	2	522	32	10,529
Schools for blind children.....	19	749	18	1,389		
Schools for deaf children.....	37	2,046	16	2,110	260	16,763
Day schools and classes for defective chil- dren.....	159	9,847				
Boarding institutions for defective or epileptic children.....	1	65	10	557	78	10,633
"Certified efficient" schools.....			78	10,633		
Total.....	7,046	3,468,595	13,837	3,574,371	20,883	7,042,966

^a This phrase is used to denote schools recognized under the code, other than higher elementary schools.

Table I shows the number of schools included under the head of public elementary schools, their classification, and accommodation.

The denominational affiliations of the voluntary (nonprovided) schools were as follows:

	Church of England schools.	Wesleyan schools.	Roman Catholic schools.	Jewish schools.	Undenomi- national and other schools.
Number of schools.....	11,418	372	1,070	12	780
Accommodation.....	2,761,917	142,210	412,669	11,358	214,032

Table II shows the number of students in the various classes of public elementary schools December 31, 1906, and their classification by age:

TABLE II.—*Number of scholars of various ages on the school registers on last day of school year.*

	Under 3.	3 and under 5.	5 and un- der 7.	7 and un- der 12.	12 and un- der 15.	15 and over.	Total.
Ordinary public elementary schools:							
Scholars under instruction as:							
Infants.....		582,802	1,205,179	303,379	261		2,091,621
Older scholars.....		30	56,649	2,842,480	1,048,510	5,104	3,952,773
Higher elementary schools.....				1,489	6,339	402	8,230
"Certified efficient" schools.....		405	860	2,327	1,119		4,711
Schools and institutions for blind children.....			80	670	623	340	1,713
Schools and institutions for deaf children.....			198	1,549	1,132	647	3,526
Day schools and classes for de- fective children.....			86	5,430	2,137	233	7,886
Institutions for defective or epileptic children.....			3	46	20	3	72
Total.....		583,237	1,263,055	3,157,370	1,060,141	6,729	6,070,532
Total for preceding year.....	1,460	608,389	1,249,064	3,177,523	1,010,128	7,770	6,054,334
Increase.....			13,991		50,013		16,198
Decrease.....	1,460	25,152		20,153		1,041	

The following table gives the principal statistics relative to the schools classified as ordinary public elementary.

ORDINARY PUBLIC ELEMENTARY SCHOOLS.

TABLE III.—*Summary (departments, teachers, scholars, fees).*

	1904-5.	1903-4.	1902-3.
Number of departments.....	31,927	31,833	31,597
Number of teachers in employment on last day of school year:			
Certificated teachers—			
Trained.....	42,893	41,451	39,904
Untrained.....	35,841	33,360	31,010
Uncertificated teachers.....	42,346	40,769	38,191
Other teachers.....	43,989	45,345	45,279
Total.....	165,069	160,925	154,384
Scholars:			
Number of scholars on the registers at the end of the school year—			
Boys.....	3,048,736	3,040,097	3,013,432
Girls.....	2,995,658	2,991,010	2,967,172
Total.....	6,044,394	6,031,107	5,980,604
Number of partial exemption scholars attending at any time during the year.....	80,368	78,876	80,681
Average number of scholars on the registers during the year....	6,045,380	6,003,245	5,958,839
Average number of scholars in attendance during the year....	5,249,485	5,144,702	5,000,219
Fees:			
Number of schools charging fees for scholars between 3 and 15 years of age.....	790	1,421	2,492
Number of scholars between 3 and 15 years of age paying fees.	268,823	412,471	607,534

The number of pupils on the registers at the end of the year 1904-5, in the ordinary public elementary schools, viz, 6,044,394, was equivalent to 17.8 per cent of the population (1904). The average number of scholars on the registers during the year was 6,045,380, of whom 3,087,456 were in council schools and 2,957,924 in voluntary schools. On the average enrollment an average attendance was maintained of 87.35 per cent in council schools and of 86.29 per cent in voluntary schools.

Expenditures.—The expenditures for public elementary schools for the financial year April 1, 1905, to March 31, 1906, were met as follows:

	Amount.	Equivalent in United States money.
From Parliamentary grant.....	£9,867,456	\$49,337,280
From endowments, fees, etc.....	302,467	1,512,335
From local taxes (rates).....	8,000,891	43,304,455
Total.....	18,830,814	94,154,070

Of the total 52.4 per cent was met by the grant and 45.98 per cent by local taxes. There was included in the total the sum of £2,210,964 (\$11,054,820), payment on loans for land and buildings.

UNIVERSITIES OF GREAT BRITAIN AND IRELAND.

Attendance at universities of Great Britain and Ireland at specified dates.

Universities and university colleges.	Students.				
	1897.	1899.	1901.	1903.	1905.
Great Britain:					
England and Wales—					
Oxford (22 colleges, 4 halls, and noncollegiate students)	3,408	3,466	3,481	3,570	3,648
Cambridge (17 colleges, 1 hostel, and noncollegiate students)	2,929	3,016	2,958	2,900	3,054
Durham	171	170	^a 590	1,831	870
London ^b			6,889	6,083	8,287
Victoria (Manchester)			2,404	1,914	1,152
Leeds				842	833
Liverpool				667	790
Sheffield					1,711
Birmingham				814	850
University of Wales (3 colleges)			1,428	1,495	1,383
University colleges	13,411	11,301	^c 4,131		
University colleges for women	393	400	417		443
Bedford College for Women ^d	192	170			
Royal Holloway College for Women ^d		110			
Technical: City and Guilds of London (4 institutions) ^d		1,592			
Scotland—					
Aberdeen	755	765	755	814	830
Edinburgh	2,812	2,848	2,929	2,990	3,165
Glasgow	1,789	2,010	2,013	2,178	2,364
St. Andrews (2 colleges)	236	261	^a 419	546	502
Dundee University College ^e	175	116			
Glasgow (technical) College	286	268	298	314	^f 530
Ireland:					
Dublin University	1,100	1,100	976	936	1,088
Belfast Queen's College	343	311	359	342	387
Cork Queen's College	206	188	171	199	232
University College, Dublin				180	184
Galway Queen's College	105	91	97	97	97

^a Three colleges.

^b London University, reorganized as a teaching institution in 1900, includes University and King's colleges, 2 colleges for women (Bedford and Royal Holloway), 6 theological colleges or schools, West-field College, the Royal Agricultural College, 12 medical schools, the City and Guilds Central Technical College, the Royal College of Science, and the London School of Economics. The number of students is incomplete as regards medical schools and evening classes.

^c The greater part of the colleges formerly comprised under the head of university colleges have been gradually included under the following university organizations: London, Victoria, Durham, and Birmingham.

^d Included in London University since 1900.^e Affiliated with St. Andrews in 1897, and since 1900 statistics included with those of St. Andrews.^f Not including 4,490 evening students.

UNIVERSITY NOTES.

Oxford.—Since the establishment of the Rhodes scholarships at Oxford so many inquiries have been received at the Bureau in regard to that university that it is deemed advisable to publish information upon the matter which is usually made the subject of inquiry.

The University of Oxford numbers upward of 13,000 members. Of these about 3,500 are in residence in Oxford; the remainder, with a few exceptions, have finished their academical course, taken a degree, and are scattered over the country, following various professions. The resident members of the university consist of undergraduates going through a course of instruction and study and of graduates giving instruction or engaged in research. The resident graduates are 400 or 500 in number, and the undergraduates in residence are about 3,000.

The government of the university is in the hands of three bodies: (1) Convocation, which consists of all masters of arts and doctors of civil law, medicine, or divinity, who remain members of the university, whether resident or nonresident; (2) congregation of the university, which consists of resident members of convocation; (3) the hebdomadal council, which consists of certain officers and 18 members elected by congregation. The hebdomadal council alone has the power of initiation; congregation

can amend, confirm, or reject its proposals; convocation can only confirm or reject them; it may, however, amend certain proposals relating to money. The election of the university representatives in Parliament is vested in the members of convocation.

In order to "matriculate," or become a member of the university, it is necessary to be admitted into one of the colleges or halls or into the body called noncollegiate students. A candidate may be admitted into a college as a scholar, as an exhibitor, or as a commoner. To be admitted into a college as a commoner or to become a member of a hall or a noncollegiate student it is necessary to pass an examination held by the college or hall or by the delegates of noncollegiate students or to have passed some test accepted in lieu of this examination. The degree of bachelor of arts, the ordinary university degree, can not be obtained in less than two years and eight months from matriculation, nor without residing in Oxford for 12 terms, which need not be continuous. There are 4 terms in each year. Members of the university who wish to proceed to a degree must first pass responsions or one of the examinations accepted as equivalent. The path of undergraduates then divides. Those aiming at honors in natural science take the science preliminary and then the final schools. To the rest three courses are open, (a) to read pass moderations and pass finals; (b) to read pass moderations (or, what is reckoned as the equivalent for the schools of law and modern history, the law prelim.), and one of the final honor schools of Litt. Hum., mathematics, natural science, law, modern history, theology, oriental studies, and English literature; (c) to read honor moderations in classics or mathematics, and any one of the above-mentioned honor schools or the pass final school. After passing these examinations the undergraduate is entitled to take the degree of bachelor of arts. For a musical degree a special course is prescribed. For the higher degrees of bachelor or doctor in civil law, medicine, and divinity no more residence is necessary, but for the baccalaureate in civil law and medicine there is an examination prescribed. For the degree of B. Litt. or B. Sc., there is a course of special study or research of a high standard selected by the candidate with the approval of the board of the faculty to which the subject belongs. For the baccalaureate in divinity a thesis is required. For the M. A. degree the only requirement is that the candidate should have taken the B. A. degree and had his name on the books for 26 terms since his matriculation. The new degrees of D. Litt. and D. Sc. are open to bachelors of letters and bachelors of science of 26 terms standing, and to M. A.s of 39 terms standing. Candidates must submit to the board of the faculty to which their subject belongs published books or papers containing an original contribution to the advancement of learning or science. The bulk of the instruction at Oxford is given by the college tutors and lecturers under a system which allows members of one college to attend lectures given in any other. The remainder of the instruction is given by the university professors and readers. The chief university institutions are the Bodleian Library, the second library in the Kingdom, and the museum, which is furnished with all that is necessary for teaching natural science and medicine.

Among recent measures indicating the gradual development of the two older universities of England along modern lines, the following are specially noteworthy:^a

The organization of military instruction at Oxford, in view of the new departure whereby commissions are to be assigned annually to university students, is engaging the steady attention of the recently appointed delegacy. Courses of instruction are already arranged in military history and strategy, in military engineering, in military topography, and in tactics, military law, and administration. The candidates must be over 20 and under 25 when they present themselves for nomination; they must have qualified for a degree, with special qualification in mathematics for those who aim at the royal artillery; must have been "attached to a regular unit" for twelve weeks, and obtained a certificate; and must have passed an examination (held twice a year) in military subjects. The adaptation of the special arrangements for the military course to the condition of the ordinary studies has been carefully prepared; e. g.,

^a See *Journal of Education* (London), 1905, pp. 201, 202, 556-7.

artillery candidates are advised to read for mathematical moderations; the "Military history" special period is now included in the history school subjects; and military law, history, strategy, etc., can be offered in the final pass school, so that 3 out of 5 of the subjects required in the military examination can be taken for the pass degree.

The establishment of special studies leading up, not to a degree but to a diploma, has been an interesting growth of recent years at Oxford. Two more such diplomas have been established, namely, in anthropology and in forestry. The great advantage of this arrangement is that it meets the case (1) of those studies which are too special or restricted in range to be satisfactory avenues to a degree; (2) of those students who have completed their general education (at Oxford or elsewhere), but wish to reside for a time, for the sake of some special study, and yet naturally wish to obtain some recognition or evidence that they have pursued that study with profit. It is obvious that this class of students has largely increased in the older universities of late years. The research degrees, the Rhodes scholarships, the greatly increased communication between seats of learning in England, Europe, and America—all alike suggest and illustrate the new needs, which this is one among many attempts to meet.

A new illustration has been supplied this term from quite a different quarter, which may be briefly reported. The university has been interested to hear that the new policy of the Indian secretary to transfer the education of the Indian forestry students (hitherto taught with the students at Coopers Hill) to the older universities will be carried into effect at Oxford next October. About a dozen have been selected, and accepted by various colleges; and their studies will include besides mathematics, surveying, geometrical drawing, and German, also chemistry, geology, forest plants and insects, and the theory and practice of forestry generally. Many of the students will in future doubtless be able to take a degree; but meanwhile the university has agreed to establish a diploma in forestry, under a statute substantially of the same form as those adopted for public health, education, economics, geography, and anthropology.

The first batch of students are already part of the way through their course, but in future a new avenue will be open (through forestry) for Oxford science students and others, to a branch of the civil service, with all its advantages.

Cambridge.—A new diploma in mining engineering, open to candidates who have kept 9 terms and have pursued a course of study and examinations in the cognate subjects, is to be established, in pursuance of an act of Parliament (1903) for the regulation of mines. The act empowers the home secretary to issue certificates qualifying for the position of colliery manager, after a shortened period of service in a mine, to university graduates who possess certain scientific and technical qualifications.

Two commissions in the Indian army will be added each year to those already allotted to the university, bringing the number of commissions in all the forces up to 14.

Aberdeen University.—The most interesting event of the year in university circles of Great Britain was the celebration of the four hundredth anniversary of Aberdeen, September, 1907. The brilliancy of the ceremony was emphasized by the presence of King Edward and Queen Alexandra. The King dedicated Marischal College, the new building belonging to the university, which had been erected at an expense of \$1,100,000.

Dublin University.—On account of the decision to grant degrees of Dublin to women students on the same terms as to men, a large company of candidates from Girton, Newnham, and other colleges in relation with English universities that do not admit women to degrees, made application during the year for the Dublin degrees. After 1907, however, the Dublin degree will only be conferred upon women students who have been in residence at the university, and it is believed that this restriction will increase the prestige and elevate the standard of the degree.

UNIVERSITY COLLEGES OF RECENT FOUNDATION.

The university colleges established in recent years in the great manufacturing centers of Great Britain are modern in character, their courses of study having been planned to meet the demands of the times. It is impracticable to reproduce these courses here in full, and it suffices to say that they all have one common characteristic, in that while preserving a respectable proportion of classical studies most of the curriculum is devoted to modern languages and sciences and to the various branches of engineering and technology and agriculture in order to supply capable experts for the

great modern industries. At these university colleges, as at continental institutions of a similar character, attention is paid to preparing students for local industries or business vocations. Special subjects of this character given in the programmes of studies range from banking to naval construction, brewing, coal mining, lace making, hosiery, etc., or agriculture, according to locality.

A large number of young women attend these colleges, most of whom prepare themselves for teaching, the colleges offering courses of instruction for that profession. Another noticeable feature in the work of the colleges is the liberal provision made by them for evening classes.

It should be added that the university colleges participate in the annual grant made by Parliament, amounting for the year ending March 31, 1905, to £54,000 (\$270,000). The three colleges in Wales belonging to the same class receive a grant of £4,000 (\$20,000) each. A number of the colleges have been incorporated as local universities. The list of these colleges with a few details intended to show their origin and present attendance is as follows:

The University of Birmingham was incorporated by royal charter on the 24th of March, 1900; and, by the Birmingham University act, 1900, Mason University College was merged in the university as from the 1st of October, 1900.

Faculties of science, arts, and commerce: The staff consists of the principal, the vice-principal, 21 professors, 9 special lecturers, 14 lecturers, and 10 demonstrators.

Subjects of instruction: Mathematics (pure and applied); physics, chemistry, metallurgy, mining, zoology and comparative anatomy, botany and vegetable physiology, physiology, geology and physiography, geography; civil, mechanical, and electrical engineering; malting and brewing; commerce, accounting, Greek, Latin, English language, literature, and composition, French language and literature, German language and literature, mental and moral philosophy and political economy, history, education, music, Hebrew, Spanish, Italian, commercial law.

In 1904 the number of students was 653 (394 men, 259 women).

The University of Leeds comprises (1) The Leeds School of Medicine, founded in 1831, and the Yorkshire College, established (first as a college of science) in 1874, which became united in 1884. From 1887 to 1903 the Yorkshire College formed part of the Victoria University; from October, 1903, until April, 1904, it was associated with the Owens College in the Victoria University of Manchester; and in 1904 it became an independent university, with the name of "The University of Leeds," the Yorkshire College being merged in the university by act of Parliament passed in the same year.

The teaching staff in the department of arts and science in 1904 numbered 87 professors, lecturers, and assistants, and in the department of medicine, 28. The number of students registered in the day classes in 1904 was 685 (505 men, 180 women).

The University of Liverpool was founded in 1903 and began its work with a staff of 30 professors, lecturers, etc., and during the session 1903-4 registered in the departments of arts, science, law, and engineering 542 students (358 men, 184 women), and in the medical school 158. It is interesting to observe that upon a total registration in studies which, including duplicates, gives a roll of 9,305 students, 162 students pursued Greek, 878 Latin; mathematics and the sciences predominated, with 2,970 students; technical courses (architecture, electrotechnics, engineering), 2,413 students.

The zoological laboratories of the university, nearly completed, will afford ample accommodation for the research work carried on under the auspices of the Liverpool marine biology committee and the Lancashire sea fisheries committee.

Victoria University.—Owens College, Manchester, founded in 1846, and the Manchester Royal School of Medicine, which was united with the college in 1872, are constituent parts of the Victoria University of Manchester, chartered in 1880.

Two colleges, Liverpool and Leeds, subsequently admitted to this foundation, have recently been incorporated with the universities of their own cities.

The teaching staff of Victoria University consists of 39 professors and 115 lecturers, demonstrators, and assistant lecturers. The number of day students attending the various departments in 1903-4 was 1,245 (900 men, 345 women), distributed as follows: Department of arts, science, and law, 878; medical department, 367. There were also 277 evening students attending courses in law and political economy under arrangement with the Bankers' Institute (about 100 in each course), and above 900 students in the course on railway economics.

University College, Sheffield, constituted by royal charter in 1897, was formed by the amalgamation of three preexisting institutions—the Firth College, the Sheffield Technical School, and the Sheffield School of Medicine. These institutions had previously worked hand in hand, although under independent governing bodies. By the charter they were merged into one corporation with a single court of governors.

The aim of the college is to provide for the people of Sheffield and the district the means of higher literary and scientific education by university methods of teaching. Its doors are open to all, without distinction of sex or class, who are over 17 years of age, though the limit of age may be lowered in exceptional cases. Applicants for admission under 16 years of age are required to pass an examination in English, mathematics, and Latin.

The courses of instruction include civil, mechanical, and electrical engineering; metallurgy, coal mining, mathematics, physics, chemistry, biology, English language and literature, history, Anglo-Saxon, Gothic, etc., Latin, Greek, philosophy, economics, accounting, French, German, Spanish, law, music, education, commerce, extension lectures, and medicine.

The teaching staff comprises in the department of arts, science, etc., 12 professors and 26 lecturers and demonstrators, and in the department of medicine 9 professors and 17 assistants.

The number of students registered in 1903-4 was: Day students, men 409 (12 under 16 years of age); women, 105; evening students, men 1,312, women 55.

Armstrong College, Newcastle upon Tyne (formerly Durham College of Science), founded in 1871, is an incorporated society in the University of Durham. The members of the society, called governors, become such by virtue of contributions to its funds of not less than £2 per annum, or as representatives of bequests amounting at least to £100. The college is in fact the outcome of efforts on the part of representative citizens to provide scientific and technical education for the surrounding population.

The college buildings are spacious, affording accommodation for about 3,000 students, of whom 1,000 may be simultaneously at work in the various laboratories or engineering shops. The total number of day students in 1903-4 was 523, including 191 women; of evening students 1,114, including 80 women.

University of Wales.—The three university colleges of Wales, Aberystwyth, dating from 1872, University College of North Wales (Bangor), 1884, and University College of South Wales and Monmouthshire (Cardiff), 1883, constitute the University of Wales incorporated in 1893. Their general purpose, like that of the university colleges of England, is to afford at a moderate expense the means of higher education in such branches of learning as are usually studied in the universities of Great Britain, with extensive courses in science and facilities for technical courses arranged with special reference to local requirements.

Aberystwyth enrolled 467 students in 1903-4, of whom 413 took complete university courses. In addition to the above regular students, 28 men (farmers' sons and others engaged in agriculture) attended a seven-weeks' course in agriculture, chemistry, and kindred subjects during Michaelmas term of the session 1903-4, and 9 attended an extended short course of sixteen weeks during Michaelmas and Lent terms.

Schoolmasters' classes in horticulture and nature study are carried on in the vacation.

University College, Bangor, in 1903-4 reported 330 students (204 men, 126 women), of whom 31 were pursuing courses in agriculture. The University College of South Wales (Cardiff) reported 651 day students and an attendance at the Technical School of the county borough of Cardiff (evening classes) of 3,196.

The three colleges prepare students for degree examinations and many of their graduates appear in the roll of successful candidates for the degrees of London University.

The particulars above given indicate more clearly than any general characterization the status and adaptations of the local colleges of Great Britain that have become parts of university foundations. Of the remaining colleges of the modern type participating in the annual grant of £54,000, the following, Bristol (1876), Dundee (1880), Reading (1892), and Hartley University College, Southampton, 1902 (founded in 1850 as the Hartley Institute), are detached colleges working on the same lines as those that have become parts of university organizations.

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